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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,461	09/19/2003	John Paul Maye	61844(51035)	8336
21874	7590	10/10/2006	EXAMINER	
EDWARDS & ANGELL, LLP			JOYNER, KEVIN	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	

1744

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,461

Applicant(s)

MAYE, JOHN PAUL

Examiner

Kevin C. Joyner

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/18/2005, 07/21/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 7, 8, 10, and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Concerning claims 7 and 10, the specification states that a 2% composition of HEXAHOP™ is added to a detergent solution and used as antimicrobial agent. The specification does not state that the solution is used in food packaging material. It only states that hop acids can be incorporated into food packaging materials. Regarding claims 8 and 13, the specification states that the acids can control the microorganisms. The scientific definition of inhibition is to prohibit or reduce the rate of a material or living entity. An object can be controlled without reducing or prohibiting. Therefore inhibition is further limiting the claim past what is stated in the specification, thus rendering it new matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 7, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "the biodegradable detergent" in lines 4 and 5.

There is insufficient antecedent basis for this limitation in the claim. The claim is providing an indirect limitation to the "detergents and cleaners" stated in line 3 of the same claim. Since claims 2 and 3 are dependent upon claim 1, then they are rejected as well. Furthermore, claim 1 includes the term "detergents and cleansers" on line 3. It is unclear to the examiner whether the hop acids are added to a combination of detergents and cleansers or whether the acids can be added to either detergents or cleansers. For purposes of examination, the following statement will be interpreted as an addition of hop acids to either detergents or cleansers. Corrective action is required.

Claims 7 and 10 contain the trademark/trade name HEXAHOP™. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe

Art Unit: 1744

a solution in the food packaging material and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4, 8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Barney et al. (U.S. Patent No. 5,455,038).

Barney discloses a method and apparatus of using hop acids as an antimicrobial agent (column 1, lines 16-18) in a food packaging material (column 2, lines 13-15), comprising: delivering the hop acids in a medium used in controlling microorganisms (column 3, lines 34-67), wherein the hop acids are mixed with the medium in an amount to inhibit microbial agents (column 1 lines 61-64).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 and 10, are rejected under 35 U.S.C. 103(a) as being unpatentable by Barney et al. (U.S. Patent No. 5,455, 038).

Barney is relied upon as set forth in reference to claims 4, 8, 12 and 13 above. Barney does not specifically state that the food packaging material comprises a 2% by weight volume of detergent. However, it would have been well within the purview of one of ordinary skill in the art to optimize amount of detergent in the packaging material in order to maximize the inhibition of the microorganisms. Only the expected results would be attained.

8. Claim 1, is rejected under 35 U.S.C. 103(a) as being unpatentable by Barney et al. (U.S. Patent No. 5,455, 038) in view of Millis et al. (U.S. Patent No. 5,286,506).

Barney is relied upon as set forth in reference to claims 4, 8, 12, and 13 above. Barney does not appear to specifically state that the hop acids are used in a food processing facility. However, it does state that the acids can be added to a food packaging material (column 2, lines 13-15), which is found in a food processing facility. Therefore, the hop acids are used in a food processing facility in order to control microorganisms. Concerning the limitation of delivering the hop acids in a detergent or cleanser, Barney does not appear to disclose this piece of information. Millis discloses a product and process for the inhibition of food pathogens by hop acids. The patent further discloses that the hop acids are delivered in a detergent (As broadly defined, NaOH (column 3, line 42) is a detergent). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the product and process

of Barney to deliver the hop acids in a detergent solution as shown by Millis. This would provide a safe sterile delivery of the hop acids to the food processing facility.

9. Claims 6, 9, and 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barney et al. (U.S. Patent No. 5,455, 038) in view of Barney et al. (U.S. Patent No. 7,005,453).

Barney (U.S. Patent No. 5,455,038) is relied upon as set forth in reference to claims 4, 8, 12, and 13 above. Barney (U.S. Patent No. 5,455,038) further discloses that the microbial organisms are *Listeria monocytogenes* (column 2, line 59). Barney (U.S. Patent No. 5,455, 038) does not appear to disclose that the microbial organisms are also *Staphylococcus aureus*. U.S. Patent No. 7,005,453 discloses a method of using hop acids to inhibit the growth of microorganisms, in particularly *Staphylococcus aureus* (located in the title). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method and apparatus of utilizing hop acids as an antimicrobial agent of Barney et al. (U.S. Patent No. 5,455,038) in order to inhibit the growth of the microorganism *Staphylococcus aureus* as is a known contaminating bacteria as exemplified by U.S. Patent No. 7,005,453.

10. Claim 2, is rejected under 35 U.S.C. 103(a) as being unpatentable over Barney et al. (U.S. Patent No. 5,455, 038) in view of Millis et al. (U.S. Patent No. 5,286,506) as applied to claim 1 above, and further in view of Barney et al. (U.S. Patent No. 7,005,453).

Barney (U.S. Patent No. 5,455,038) in view of Millis is relied upon as set forth in reference to claim 1 above. Barney (U.S. Patent No. 5,455,038) further discloses that

Art Unit: 1744

the microbial organisms are *Listeria monocytogenes* (column 2, line 59). Barney (U.S. Patent No. 5,455, 038) does not appear to disclose that the microbial organisms are also *Staphylococcus aureus*. U.S. Patent No. 7,005,453 discloses a method of using hop acids to inhibit the growth of microorganisms, in particularly *Staphylococcus aureus* (located in the title). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method and apparatus of utilizing hop acids as an antimicrobial agent of Barney et al. (U.S. Patent No. 5,455,038) in view of Millis in order to inhibit the growth of the microorganism *Staphylococcus aureus* as is a known contaminating bacteria as exemplified by U.S. Patent No. 7,005,453.

11. Claims 5, 11, and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barney et al. (U.S. Patent No. 5,455, 038) in view of Probasco et al. (U.S. Publication No. 2003/0129270).

Barney is relied upon as set forth in reference to claims 4, 8, 12, and 13 above. Barney does not appear to disclose that the hop acids are hexahydroisoalpha acids. Probasco discloses a method and apparatus for making pesticides from hop extracts. The publication states that hop acids including hexahydroisoalpha acids (page 1, paragraph 6, line 7) are used to inhibit microorganisms (as broadly interpreted a pesticide is a microorganism), and are used in the food industry (page 1 paragraph 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the hop acid of hexahydroisoalpha in the product and process of Barney in order to inhibit microorganism growth, as such is a known inhibitor and contained within hop extracts as shown by Probasco.

12. Claim 3, is rejected under 35 U.S.C. 103(a) as being unpatentable over Barney et al. (U.S. Patent No. 5,455, 038) in view of Millis et al. (U.S. Patent No. 5,286,506) as applied to claim 1 above, and further in view of Probasco et al. (U.S. Publication No. 2003/0129270).

Barney in view of Millis are relied upon as set forth in reference to claim 1, above. Barney in view of Millis does not appear to disclose that the hop acids are hexahydroisoalpha acids. Probasco discloses a method and apparatus for making pesticides from hop extracts. The publication states that hop acids including hexahydroisoalpha acids (page 1, paragraph 6, line 7) are used to inhibit microorganisms (as broadly interpreted a pesticide is a microorganism), and are used in the food industry (page 1 paragraph 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the hop acid of hexahydroisoalpha in the method and product of Barney in view of Millis in order to inhibit microorganism growth, as such is a known inhibitor and contained within hop extracts as shown by Probasco.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin C. Joyner whose telephone number is (571) 272-2709. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone

Art Unit: 1744

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCJ



GLADYS JP CORCORAN
SUPERVISORY PATENT EXAMINER